

Date: Tuesday, 07/04/2009 10:17:04 AM  
 User: Julie Dawson

## Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : STEP STRUT
Job Number : 46945	
Estimate Number : 11940	
P.O. Number :	Part Number : D2017127
This Issue : 07/04/2009 S.O. No. :	Drawing Number : D2017 REV <i>ETF</i>
Prsht Rev. : NC	Project Number : N/A
First Issue : // Type : SMALL /MED FAB	Drawing Revision : <i>ETF</i> <i>09/04/28</i>
Previous Run : 43577	Material :
Written By :	Due Date : 22/04/2009 Qty: 4 Um: Each
Checked & Approved By : <i>JUD 09.04.07</i>	
Comment : Est F 02.06.19 Update processes (Ref. ECN 435) KJ	

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	M304TR0750W049	304 RD Tube .750 x .049W
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Comment: Qty.: 1.8025 f(s)/Unit Total : 7.2101 f(s)

Punch tube type 304-2B, 3/4" Ø. X .049" wall to length per Dwg. D2017 & spec control D2638

Batch No. *1111331*

Deburr

*M-1 09/04/28 (4x)*

*SB 09/04/27*

*(4)*

2.0	QC5	INSPECT WORK TO CURRENT STEP
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Comment: INSPECT WORK TO CURRENT STEP

*09/04/28 (x4)*

3.0	POWDER COATING	POWDER COATING
-----	----------------	----------------



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.2) as per QSI 005 4.3

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

*15340*  
*400°*  
*16:10*

*MD BR*

*09/04/28*

*(x4)*

4.0	QC3	INSPECT POWDER COAT/CHEMICAL CONVERSION
-----	-----	---



Comment: INSPECT POWDER COAT

*FD 09/04/29*

*(4)*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

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Drawing Name: STEP STRUT

Job Number: 46945

Part Number: D2017127

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: \_\_\_\_\_

ST 258

SS 09/04/29

6.0

QC21

FINAL INSPECTION/W/O RELEASE



09/04/30

Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



mf  
09-04-29

**Dart Aerospace Ltd**

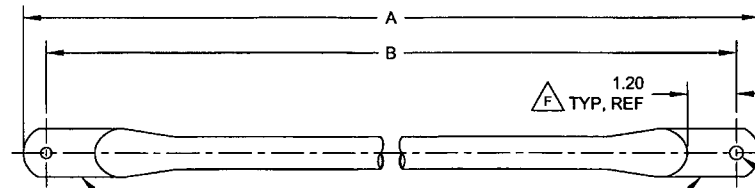
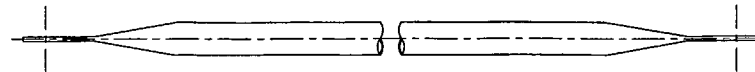
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



Ø0.312  
WIDEN HOLE  
AFTER PUNCHING  
1 END ONLY

8  
EXCEPT  
AS SHOWN

### D2017-XXX STEP STRUT

PART NUMBER	A	B
D2017-101	17.73	16.93
D2017-103	18.74	17.94
D2017-113	20.50	19.70

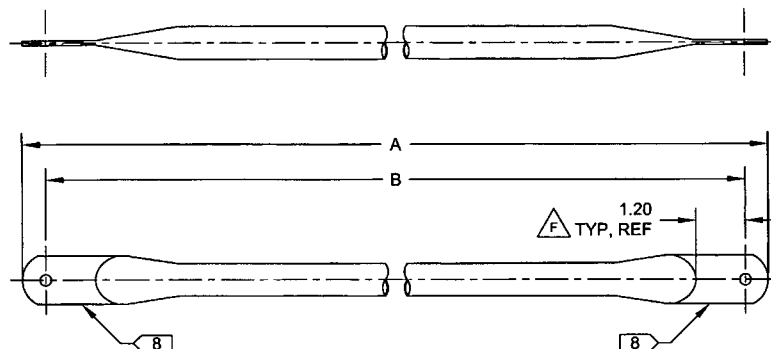
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WORK ORDER  
NO. 110025

#### NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL TUBE, Ø0.750 x 0.049 WALL  
REF. DART SPEC M304TR0.750W.049
- 2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D2017-XXX" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: N/A
- 8) PUNCH ENDS PER SPEC CONTROL DRAWING D2638.

RELEASED  
09/04/16

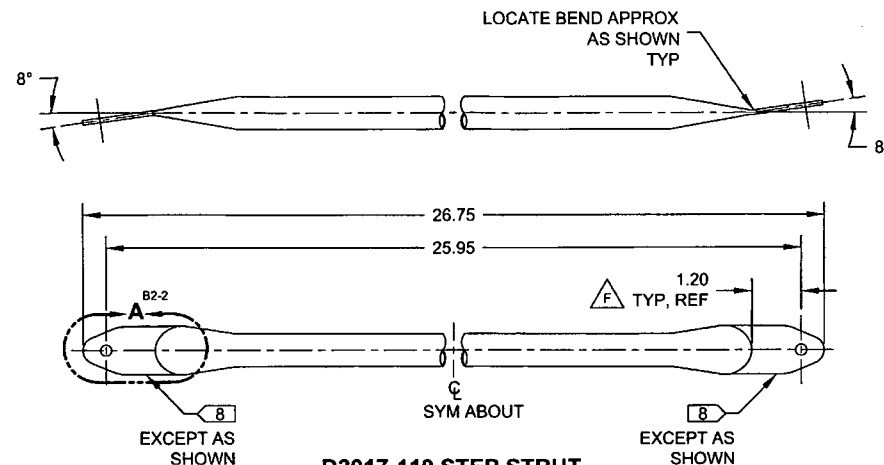
F	DRAWING TRANSFERRED TO "B" FORMAT AND TO CURRENT STANDARDS. REDRAWN FOR CLARITY 1.20 REF DIM ADDED. SEE PAR 09-002 FOR DETAILS.	AJS	09.03.06
E	ENDS PUNCHED PER SPEC CTRL; -119 CHANGE (TSR A897) ADD FINISH (INCOPORATE E1)	CP	02.03.22
D	ADDED PARTS	BW	96.03.28
C	ADDED PARTS	BW	95.01.26
REV.	DESCRIPTION	BY	DATE
DESIGN	BW	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2017	SHEET 1 OF 2
APPROVED		TITLE	SCALE
DE APPR.		STEP STRUTS	NTS
DATE	09.03.06	<small>COPYRIGHT © 1995 BY DART AEROSPACE LTD  THIS DOCUMENT IS PRIVATE AND UNCLASSIFIED. IT IS TO BE USED ONLY FOR THE PURPOSES FOR WHICH IT WAS  ISSUED. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT  PERMISSION IN WRITING FROM DART AEROSPACE LTD.</small>	



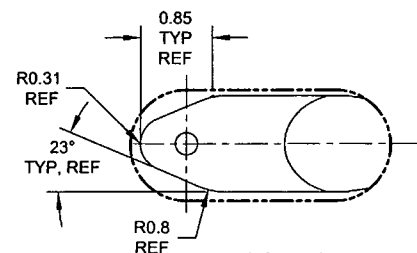
**D2017-XXX STEP STRUT**

PART NUMBER	A	B
D2017-105	14.95	14.15
D2017-107	15.61	14.81
D2017-109	13.93	13.13
D2017-111	15.30	14.50
D2017-115	12.42	11.62
D2017-117	13.86	13.06
D2017-121	12.30	11.50
D2017-123	12.92	12.12
D2017-125	19.55	18.75
D2017-127	20.30	19.50
D2017-129	31.43	30.63
D2017-131	19.68	18.88
D2017-201	21.31	20.51
D2017-203	16.39	15.59
D2017-205	16.53	15.73
D2017-207	13.85	13.05
D2017-209	15.64	15.33
D2017-211	15.67	14.87
D2017-213	15.82	15.02
D2017-215	16.47	15.67
D2017-217	16.70	15.90
D2017-219	13.65	12.85
D2017-221	13.58	12.78
D2017-223	12.95	12.15
D2017-225	13.99	13.19
D2017-227	30.67	29.87
D2017-133	30.66	29.86

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**D2017-119 STEP STRUT**  
(SHOWN PRIOR TO BENDING)



**DETAIL A** D4-2  
TRIM AFTER PUNCHING PER DT8360  
SCALE 2X

**RELEASED**  
09/04/16

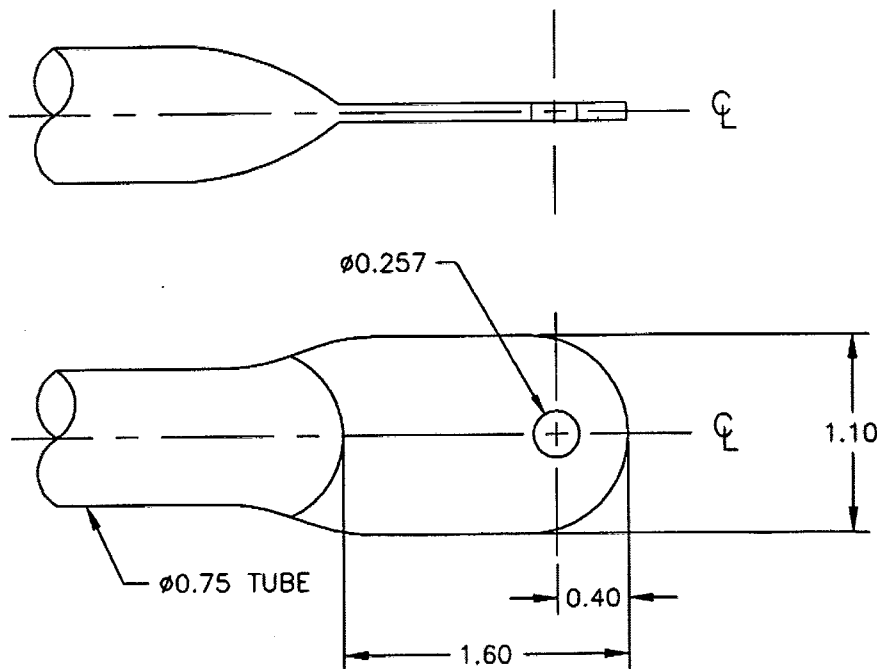
DESIGN	BW	<b>DART AEROSPACE LTD</b>	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2017	SHEET 2 OF 2
APPROVED		TITLE	SCALE
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DESIGN KE	DRAWN BY KE	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED MIB	APPROVED KE	DRAWING NO. D2638	REV. A SHEET 1 OF 1
DATE 98.04.28	TITLE PUNCH DT8117 SPEC CONTROL		SCALE 1:1
A	98.04.28	NEW ISSUE	

RELEASED  
98/05/05 KE

## SPECIFICATION CONTROL DRAWING FOR PUNCH DT8117



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